No closely related species has been noted, though several Pachycheili, such as *P. pluristriatus* (Say), have well-developed spiral sculpture.

VITRINELLIDAE OF FLORIDA: PART 5

BY H. A. PILSBRY AND T. L. McGINTY

Solariorbis Euzonus new species. Pl. 5, figs. 7, 7a.

The shell is biconvex, carinate, umbilicate, the umbilicus narrow within, very rapidly widening in the last half turn to more than a fifth of the shell diameter. The spire of about $3\frac{1}{2}$ whorls is low dome-shaped, the first whorl smooth, convex, the last whorl very wide, excavated above the peripheral keel, with a group of fine spiral striae above the excavation; the peripheral keel is strong, rounded, two strong spiral cords and several fine spiral striae below it; the rest of the base is smooth to the umbilicus, which is contracted by a strong, rather sharp ridge. The aperture is quite oblique, ovate, the peristome blunt, the columellar margin thickened and running forward into the thick, short parietal callus.

Height 0.9 mm., diameter 1.75 mm.

Sebastian, Indian River Co., Florida. Type 185808 ANSP., paratype in McGinty collection (no. 43); collected by T. L. McGinty, also North Inlet, Lake Worth. Also found by Charles R. Locklin in the Shell Creek and Saint Petersburg Pliocene.

Macromphalina palmalitoris new species. Pl. 5, figs. 6, 6a.

The thin fragile, white shell is strongly depressed, with rounded periphery. The nuclear shell is conic, erect, of two smooth, convex whorls. One whorl and two-thirds following are rounded at periphery and base, and have sculpture of retractively curved, well spaced riblets and fine but distinct spiral striae. In the concavity of the base the riblets are thin and crowded. The very oblique aperture is oval, the columellar margin only weakly curved. The contact of peristome with preceding whorl is extremely short.

Height 0.95 mm., oblique diameter 1.95 mm.

Off Palm Beach, Florida, in 400-500 feet. Dredged by T. L. McGinty. Type 185813 ANSP., presented by C. R. Locklin.

This is a much depressed species, also distinguished by its erect nuclear shell.

Parviturboides new genus

The shell is depressed globose with conic spire of few (about 4) convex whorls, the apex minute, initial $2\frac{1}{4}$ whorls smooth, abruptly giving place on the rest to a sculpture of spiral cords and very fine threads in the direction of lines of growth. Umbilicus very narrow bounded by a spiral cord. Aperture subcircular but angular above. Columellar margin thickened.

Operculum thin, multispiral.

The living animal has a narrow foot auriculate in front, bilobed or emarginate posteriorly and showing a median longitudinal line. The tentacles terminate in ciliated globules and show very minute eyes near their outer bases.

There are no epipodial cirri. The radula is taenioglossate.

Practically the only superspecific difference in the shells between this group and Parviturbo (type P. rehderi) is that slightly over two nuclear whorls of P. interruptus sanibelensis are smooth, while P. rehderi has only about one nuclear whorl, smooth and convex, the surface after it being dull with a ridge beginning rather gradually at about the middle of the second whorl. The change from smooth nuclear surface to ribbed later growth is not so abrupt as in Parviturboides, but well indicated by the dull instead of glossy luster.

While this group is apparently near *Vitrinella*, it differs by the bifid foot. The narrowly umbilicate or closed axis, more globose shape and coarse sculpture give the shells a different appearance, and probably it will be considered generically distinct.

The type of Parviturboides is "Cyclostrema" sanibelensis Pilsbry. This, together with C. zacalles Mazyck, is probably a slight variety or synonym of Vitrinella interrupta C. B. Ad. The species now referred to Parviturboides are as follows.

- P. interruptus (C. B. Adams) (Vitrinella). Jamaica.
- P. i. zacalles (Mazyck) (Cyclostrema). South Carolina.
- P. i. sanibelensis (Pilsbry) (Cyclostrema). Florida.
- P. copiosus (Pilsbry & Olsson) (Parviturbo). Ecuador to Panama.
- P. decussatus clausus (Pilsbry & Olsson) (Parviturbo). Ecuador to Colombia.

Parviturbo weberi (Nautilus 59:55) was said to have two nuclear whorls, but this was a mistake of observation due to imperfect preservation. The examination of several fresh, immature specimens shows that there are not over one and one-fourth embryonic whorls.

In introducing Parviturbo (Nautilus 59:54) we alluded to the possibility that it would prove to be identical with Pseudorbis Monterosato, based upon the Sicilian Fossarus granulum Brugnone. It is equally likely that Pseudorbis is identical with Parviturboides. Until the nuclear whorls or the dentition of P. granulum (Brugnone) can be examined, the nomenclature of our genera will remain unsettled.

NEW WEST AMERICAN TURRIDS

BY PAUL BARTSCH

In the preparation of the monograph of the Recent and Fossil East Pacific Turrids it became desirable to study the collections made by Mr. H. N. Lowe which are in the Academy of Natural Sciences of Philadelphia. Thanks to the good offices of the Academy and Dr. Pilsbry especially, these were placed in my hands for study. A comparison of this material with the collections in the U. S. National Museum makes it necessary to give nomenclatorial status to a number of species from that collection which are here described.

Adanachava adana new genus and species. Plate 6, figure 4.

Shell small, elongate-ovate, bright chestnut brown. The last of the remaining nuclear whorls is carinated. The postnuclear whorls have a weak cord at the summit followed by a concave sinal area which extends over about two-fifths of the turns and is marked by 4 spiral threads which are rendered feebly nodulose by the incremental lines. Anterior to the sinal area, the whorls are marked by protractively curved axial ribs which on the last whorl extend to the columella. These ribs are separated by spaces about twice as wide as the ribs, and the intercostal spaces are marked by 8 spiral threads separated by incised lines about half as wide as the threads. Base rather long, well rounded, with the intercostal spaces marked by 10 spiral threads equaling those on the spire in strength and spacing. These spiral threads